ABSTRACT

A selectively permeable membrane type reactor 20 including a catalyst 6 for promoting a chemical reaction, a selectively permeable membrane 8 which selectively allows a specific component to pass therethrough, and a carrier 22 for disposing the catalyst 6 and the selectively permeable membrane 8, the carrier 22 being a tubular body having two or more gas passages (cells 26) partitioned and formed by a partition wall 24 formed of a porous body, the catalyst 6 being individually disposed in some of the cells 26 of the carrier 22, the selectively permeable membrane 8 being individually disposed in the remainder of the cells 26, and the cell (reaction cell 40, 42) in which the catalyst 6 is disposed and the cell (recovery cell 38) in which the selectively permeable membrane 8 is disposed being adjacently disposed.

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